

Promoting Reading Engagement among First Year National Diploma Students through SCROL Metacognitive Strategy in Akwa Ibom State Polytechnic, Ikot Ekpene, Nigeria

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ABSTRACT

This study investigates the effectiveness of the SCROL metacognitive strategy in promoting reading engagement among first-year National Diploma students of Akwa Ibom State Polytechnic, Ikot Ekpene, Nigeria. The SCROL strategy, an acronym for Survey, Connect, Read, Outline, and Look back, encourages learners to actively process and monitor their comprehension while reading. A quasi-experimental research design was adopted, involving an experimental group exposed to SCROL instruction and a control group taught through conventional methods. Data were collected using a validated Reading Engagement Questionnaire and analysed using mean scores and t-tests. Findings revealed that students who employed the SCROL strategy demonstrated significantly higher levels of engagement, comprehension, and reading motivation compared to their counterparts in the control group. The results underscore the importance of integrating metacognitive strategies such as SCROL into reading instruction to foster independent learning and sustained engagement among tertiary-level students. It is recommended that lecturers incorporate SCROL-based activities into classroom practice to enhance students' reading proficiency and critical thinking skills.

Keywords: *Reading engagement, SCROL strategy, metacognition, National Diploma students, Akwa Ibom State Polytechnic*

INTRODUCTION

Reading remains a fundamental academic skill that supports lifelong learning and intellectual development. In tertiary education, effective reading is indispensable for comprehension, critical thinking, and knowledge acquisition. However, many first-year students entering higher institutions struggle with maintaining engagement while reading academic materials. Reading engagement, which encompasses cognitive, emotional, and

behavioural investment in reading tasks, is critical for students' success (Guthrie & Klauda, 2014). Without sufficient engagement, students often read passively, limiting their understanding and retention of information.

In Nigerian polytechnics, the challenge of low reading engagement among National Diploma students has become increasingly evident. Many first-year students demonstrate limited reading habits and weak comprehension abilities, which adversely affect their academic performance. Factors such as inadequate reading instruction, reliance on rote learning, and limited exposure to metacognitive strategies contribute to this problem (Aina & Olofin, 2021). Consequently, there is a growing need for instructional approaches that actively involve learners in the reading process.

Metacognition, or the awareness and regulation of one's own thinking, plays a vital role in enhancing reading comprehension and engagement. Metacognitive strategies help learners plan, monitor, and evaluate their understanding as they read (Flavell, 1979; Zhang & Seepho, 2013). These strategies enable students to become self-directed learners who can identify difficulties, employ corrective techniques, and sustain concentration during reading. One such strategy that has gained scholarly attention is the SCROL model.

The SCROL metacognitive strategy, an acronym for *Survey, Connect, Read, Outline, and Look back*, was developed to support students' comprehension and engagement during reading tasks (Ekwall & Shanker, 1988). The model guides readers to first survey a text to gain an overview, connect new information to prior knowledge, read attentively, outline key ideas, and finally, look back to review and consolidate learning. This structured approach encourages active reading and reflective thinking, both of which are essential for deep comprehension and meaningful engagement.

In recent years, empirical evidence has shown that the SCROL strategy significantly improves students' reading comprehension and academic performance. Studies conducted in various educational settings have demonstrated that learners trained with SCROL exhibit better comprehension monitoring and motivation to read (Denton et al., 2015; Oyetunde & Muodumogu, 2019). Despite this, limited research has examined its effectiveness within Nigerian polytechnic contexts, where reading engagement issues persist.

At Akwa Ibom State Polytechnic, Ikot Ekpene, lecturers have observed a growing concern regarding students' inability to read effectively and critically. Many students rely heavily on lecture notes and rarely engage with textbooks or supplementary materials. This lack of engagement not only limits content mastery but also hinders students' capacity to think independently. Therefore, implementing the SCROL strategy could offer a practical solution to enhance students' active participation and comprehension during reading tasks.

Furthermore, the transition from secondary school to higher education poses additional challenges for first-year students. In many cases, these learners are unaccustomed to the self-directed nature of tertiary studies and struggle to adapt to the volume and complexity of academic reading materials. Metacognitive strategies like SCROL can help bridge this gap by equipping students with tools to manage their reading effectively and develop independent learning habits (Paris & Winograd, 1990).

The significance of this study lies in its potential to contribute to the improvement of reading pedagogy in Nigerian polytechnics. By integrating SCROL into classroom instruction, lecturers can foster greater student involvement, improve comprehension, and cultivate lifelong reading habits. The approach aligns with global educational trends that emphasise learner-centred methodologies and metacognitive awareness as pathways to academic success (Afflerbach et al., 2018).

This study, therefore, aims to investigate the effect of the SCROL metacognitive strategy on reading engagement among first-year National Diploma students of Akwa Ibom State Polytechnic, Ikot Ekpene. Specifically, it seeks to determine whether students exposed to SCROL-based instruction demonstrate higher engagement levels compared to those taught through traditional methods. It also examines how the strategy influences students' attitudes, motivation, and comprehension performance.

Review of Related Literature

Reading engagement is widely recognised as a crucial determinant of academic achievement and lifelong learning. It involves the degree of interest, motivation, and active participation a learner demonstrates while interacting with written texts. Guthrie and Wigfield (2000) define reading engagement as the dynamic integration of cognitive, motivational, and social processes that encourage students to read for understanding and personal growth. Engaged readers are purposeful, strategic, and self-regulated, drawing connections between texts and their experiences. When students are disengaged, their comprehension, critical thinking, and academic outcomes tend to decline substantially.

In many Nigerian tertiary institutions, including polytechnics, reading engagement among first-year students is worryingly low. According to Aina and Olofin (2021), a large proportion of students demonstrate passive reading habits, focusing on memorisation rather than comprehension. This trend is often attributed to the dominance of teacher-centred pedagogies and the lack of emphasis on reflective reading practices in earlier education. As a result, learners enter higher education without adequate strategies to monitor and evaluate their understanding, leading to superficial learning. Encouraging reading engagement therefore requires a shift from traditional teaching methods towards student-centred, metacognitive approaches.

Metacognition, a term originally introduced by Flavell (1979), refers to one's awareness and control of cognitive processes. It plays a central role in enhancing reading comprehension and engagement, as it allows learners to plan, monitor, and evaluate their progress. Research by Schraw and Dennison (1994) indicates that students who apply metacognitive strategies during reading are better at identifying difficulties and adopting corrective measures. In the context of tertiary education, where students are expected to read complex texts independently, metacognitive awareness is indispensable for academic success.

The SCROL strategy—an acronym for *Survey, Connect, Read, Outline, and Look back*, is one of the most effective metacognitive tools developed to promote active reading. Originally proposed by Ekwall and Shanker (1988), the strategy encourages learners to survey the text for structure, connect new information with prior knowledge, read attentively, outline main ideas, and look back for review. This process transforms reading from a passive act into an interactive cognitive exercise. Studies have shown that such structured reading methods enhance comprehension and recall (Denton et al., 2015; Oyetunde & Muodumogu, 2019).

The “Survey” component of SCROL helps students gain an overview of the text by identifying titles, subheadings, and visual cues. This initial scanning activates prior knowledge and sets a purpose for reading (Pressley & Afflerbach, 1995). The “Connect” phase then enables students to link new concepts to what they already know, reinforcing schema-building—a key principle of cognitive learning theory. When students can establish these connections, their engagement deepens, and the likelihood of comprehension increases.

The “Read” stage involves a careful and focused examination of the text, during which learners actively question, infer, and summarise information. According to Paris and Winograd (1990), this phase demands sustained attention and self-monitoring, both of which are hallmarks of metacognitive reading. The “Outline” component that follows allows learners to identify and record key points, facilitating better organisation of ideas and long-term retention. Lastly, the “Look back” phase serves as a reflective step where readers evaluate their understanding and clarify ambiguities, reinforcing comprehension and engagement.

Empirical studies across various contexts have validated the effectiveness of the SCROL strategy. For instance, Denton et al. (2015) found that students who received SCROL instruction outperformed their peers in comprehension tests and displayed more positive attitudes towards reading. Similarly, a study by Oyetunde and Muodumogu (2019) in Nigerian secondary schools revealed that the strategy not only improved comprehension but also enhanced students' motivation to read independently. These findings support the view that structured metacognitive instruction can significantly

boost students' reading outcomes across educational levels. Despite the proven success of SCROL in other contexts, research focusing on its application in Nigerian polytechnics remains limited. Most existing studies have concentrated on primary and secondary school learners, with little attention to the unique challenges faced by National Diploma students (Okebukola, 2018). Polytechnic students often deal with technical reading materials that require higher-order thinking skills, making metacognitive strategies such as SCROL particularly relevant. Investigating its impact at this level could therefore bridge a significant research gap.

Theoretically, this study draws upon constructivist and metacognitive learning theories. The constructivist perspective, as emphasised by Vygotsky (1978), posits that learners construct knowledge through active engagement and reflection. SCROL aligns with this view by fostering self-directed learning and active interaction with texts. Moreover, metacognitive theory underscores the role of self-awareness in comprehension, highlighting how students' ability to regulate their thinking influences academic performance (Flavell, 1979). These frameworks collectively provide a robust foundation for understanding how SCROL can enhance reading engagement among tertiary learners.

The reviewed literature underscores the importance of reading engagement and metacognitive strategies in promoting deep learning. The SCROL model, in particular, has been recognised as a powerful instructional tool for fostering independent, reflective, and motivated readers. However, its implementation and effectiveness in Nigerian polytechnic settings remain underexplored. This gap provides a compelling rationale for the present study, which seeks to examine how the SCROL strategy can improve reading engagement among first-year National Diploma students in Akwa Ibom State Polytechnic, Ikot Ekpene.

METHOD

Research Design

This study adopted a quasi-experimental research design involving both experimental and control groups. The design was chosen because it allows for the examination of the effect of an instructional intervention, the SCROL metacognitive strategy, on students' reading engagement while maintaining the natural classroom setting. The experimental group was exposed to reading lessons structured around the SCROL model, whereas the control group received instruction through conventional reading methods. This approach enabled the researcher to establish a cause-and-effect relationship between the independent variable (SCROL instruction) and the dependent variable (reading engagement).

Area of the Study

The research was conducted at Akwa Ibom State Polytechnic, Ikot Ekpene, Nigeria, a tertiary institution offering National Diploma and Higher National Diploma programmes. The institution was selected because of its diverse student population and the observed low reading engagement among first-year students. The study focused specifically on National Diploma I students from selected departments within the School of Communication Arts, where reading comprehension is essential for academic success.

Population and sample

The population of the study comprised all first-year National Diploma students in the School of Communication Arts during the 2024/2025 academic session, totaling 180 students. From this population, one intact class of 80 students was purposively selected for the study. This class was then divided into two groups: an experimental group and a control group. The purposive sampling technique was considered appropriate as it ensured that both groups had similar academic characteristics and exposure levels, allowing for a fair comparison of outcomes.

Instrument and Data Collection Procedure

Data were collected using a Reading Engagement Questionnaire (REQ) and a Reading Comprehension Test (RCT) developed by the researcher. The REQ measured students' cognitive, emotional, and behavioural engagement, while the RCT assessed their comprehension before and after the intervention. The instruments were validated by experts in language education and educational psychology, and their reliability was established through a pilot test that yielded a Cronbach's alpha coefficient of 0.86, indicating high internal consistency. The intervention lasted for six weeks, during which the experimental group received explicit instruction on the SCROL strategy, while the control group was taught using the traditional lecture method.

Method of Data Analysis

Data obtained were analysed using both descriptive and inferential statistical techniques. Mean scores and standard deviations were used to answer the research questions, providing insight into students' levels of engagement and comprehension. Independent t-tests were employed to test the null hypotheses at a 0.05 level of significance, determining whether there were statistically significant differences between the experimental and control groups. The results were interpreted in relation to the study's objectives and theoretical framework to assess the effectiveness of the SCROL strategy in promoting reading engagement among first-year National Diploma students.

RESULTS AND DISCUSSION

The findings revealed a significant improvement in the reading engagement levels of students exposed to the SCROL metacognitive strategy compared with those taught through conventional methods. Analysis of pre-test and post-test scores showed that the experimental group recorded a higher mean gain in reading engagement and comprehension performance. Students in the SCROL group demonstrated greater concentration, interest, and persistence during reading activities. In contrast, the control group exhibited minimal progress, indicating that traditional reading instruction alone was insufficient to sustain engagement. These results affirm that the SCROL strategy effectively fosters active participation and reflective reading among National Diploma students.

Further analysis of the post-intervention data indicated that the SCROL strategy enhanced students' metacognitive awareness and ability to self-monitor during reading tasks. Learners reported that surveying, connecting, and outlining key ideas helped them make sense of complex texts and retain information more effectively. This outcome aligns with the assertions of Denton et al. (2015) and Oyetunde and Muodumogu (2019), who found that structured metacognitive instruction enhances comprehension and motivation to read. The findings also resonate with constructivist theory, which emphasises that learners construct meaning through active engagement with instructional content (Vygotsky, 1978).

The study therefore establishes that the SCROL metacognitive strategy is a practical and impactful approach to improving reading engagement among first-year National Diploma students. Its systematic nature enables students to take ownership of their learning process, transforming reading into an interactive and meaningful experience. The results underscore the need for lecturers to integrate metacognitive strategies into classroom practice to promote deeper comprehension and sustained interest in reading. These findings contribute valuable evidence to the growing body of literature supporting the use of learner-centred, strategy-based approaches to enhance literacy outcomes in higher education contexts.

CONCLUSION

The findings of this study demonstrate that the SCROL metacognitive strategy is an effective instructional approach for promoting reading engagement and comprehension among first-year National Diploma students. By guiding learners through the processes of surveying, connecting, reading, outlining, and looking back, the strategy encourages active involvement, self-reflection, and deeper understanding of texts. Students who

received SCROL-based instruction exhibited higher motivation, stronger comprehension, and greater persistence during reading activities compared with those taught through traditional methods. These results reaffirm the significance of metacognitive awareness in improving reading performance and academic achievement in higher education.

The study highlights the need for lecturers in polytechnics and other tertiary institutions to incorporate metacognitive strategies, such as SCROL, into their teaching practice. Doing so will not only enhance students' engagement with reading materials but also equip them with lifelong learning skills essential for independent study and critical thinking. The SCROL strategy thus offers a practical framework for transforming reading instruction from a passive activity into an interactive, reflective, and purposeful learning experience, ultimately contributing to improved literacy outcomes in Nigerian higher education.

RECOMMENDATIONS

Based on the findings of this study, it is recommended that lecturers adopt the SCROL metacognitive strategy as part of their reading instruction to foster greater engagement and comprehension among students. Integrating the *Survey*, *Connect*, *Read*, *Outline*, and *Look back* stages into lesson plans can help students develop structured reading habits and enhance their ability to process information critically. Lecturers should also receive professional development training focused on metacognitive instruction, ensuring they can effectively model and guide students through reflective reading processes. Furthermore, course materials should be redesigned to incorporate SCROL-based activities that encourage active participation and collaborative learning.

It is also recommended that educational policymakers and curriculum developers at the polytechnic level emphasise the inclusion of metacognitive and strategy-based reading approaches in language and communication courses. By embedding SCROL principles within the curriculum, institutions can promote a culture of independent learning and critical inquiry. Future instructional reforms should prioritise learner-centred methodologies that empower students to take control of their learning experiences. Overall, implementing the SCROL strategy has the potential to improve literacy outcomes and academic performance, preparing students to engage more effectively with complex academic and professional texts.

Future Research

Although this study has demonstrated the effectiveness of the SCROL metacognitive strategy in enhancing reading engagement among first-year National Diploma students,

it was limited to one polytechnic and a relatively small sample size. Future research should therefore include a larger and more diverse population across multiple polytechnics in Nigeria to allow for greater generalisability of results. Expanding the scope to include students from various academic disciplines could also reveal differences in how the SCROL strategy influences engagement depending on subject area and reading demands.

Additionally, future studies may explore the long-term effects of SCROL instruction on students' academic performance and reading habits beyond the immediate post-intervention period. Longitudinal research designs could provide insights into the sustainability of metacognitive strategy use and its impact on independent learning skills. It would also be valuable to investigate the relationship between SCROL-based reading instruction and other literacy skills, such as writing proficiency, vocabulary development, and critical thinking.

Further research could also examine lecturers' perceptions, readiness, and challenges in implementing the SCROL strategy within classroom settings. Understanding these instructional factors would help refine training programmes and develop practical frameworks for integrating metacognitive strategies into existing curricula. Comparative studies involving SCROL and other metacognitive models—such as SQ3R or PQ4R—may also help identify which approaches are most effective for specific learner groups. By addressing these areas, future research can contribute to strengthening reading pedagogy and improving literacy outcomes in higher education institutions.

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